

CLAIMS.

The invention claimed is:

- 1) The method of extinguishing a fire by the flames containment and suppression process herein described, which comprises the steps of:
 - a) Providing the means for the continuous compression, in the fire location, of a local ambient or atmospheric air mass flow (a gas mixture of dry air and superheated water vapor).
 - b) Providing a pipe, flexible tube or hose to transport the compressed ambient air mass flow to the flames site.
 - c) Providing the pipes, elbows, valves, controls, accessories and flow passages to feed the compressed ambient air mass flow to an expansion device, whose discharge is a flame front penetrating high speed ambient air jet, which is directed upon the flames, bringing about the flames suppression or blown off.
 - d) Providing the ducts, pipes and flow passages to feed the compressed ambient air mass flow to an expansion device or devices, wherein is generated an aerodynamic flames containment mechanism, characterized by discharge air jets whose flow fields interactions prevent the flames propagation, precluding the existence of runaway flame fronts and the inflammation of surrounding non burning materials.

- e) Providing the flow passages to feed the compressed ambient air mass flow, and therein generate a thermal insulation mechanism or heat shield, characterized by internal air flows and discharge air jets, whose flow fields prevent the heat transfer from the surrounding flames environment.
- 2) The method of extinguishing a fire as claimed in claim 1, further including the step of providing a support, a wheel or wheels, and rotary attachments to facilitate or increase the effectiveness of the fire fight work.
- 3) The method of extinguishing a fire as claimed in claim 1, further including the step of providing a pneumatic cylinder and a pneumatic control to facilitate or increase the effectiveness of the fire fight work.
- 4) The method of extinguishing a fire as claimed in claim 1, further including the step of providing a pole support and pivoted anchors to facilitate or increase the effectiveness of the fire fight work.
- 5) The method of extinguishing a fire as claimed in claim 1, further including the step of providing a ratchet wheel, a release pedal, a stability platform, and a vertical rotary attachment to facilitate or increase the effectiveness of the fire fight work.
- 6) The method of extinguishing a fire as claimed in claim 1, further including the step of providing throttle valves to facilitate or increase the effectiveness of the fire fight work.

7) The method of extinguishing a fire as claimed in claim 1, further including the step of providing a harness or suspenders to facilitate or increase the effectiveness of the fire fight work.

8) The method of extinguishing a fire by the flames containment and suppression process herein described, which comprises the steps of:

a) Providing the means for the continuous compression, in the fire location, of a local ambient or atmospheric air mass flow (a gas mixture of dry air and superheated water vapor).

b) Providing a pipe, flexible tube or hose to transport the compressed ambient air mass flow to the flames site.

c) Providing the pipes, elbows, valves, controls and accessories to feed the compressed ambient air mass flow to a device, whereinto a gas mixture components separation process takes place, characterized by the production of water in a liquid thermodynamic state obtained from the compressed ambient air mass flow water vapor contents, and whose discharge is a flame front penetrating high speed ambient air jet containing water droplets, which is directed upon the flames, bringing about the flames suppression or blown off.

d) Providing the ducts, pipes and flow passages to feed the compressed ambient air mass flow to an expansion device or devices, wherein is generated an aerodynamic flames containment mechanism, characterized by discharge air jets whose flow fields interactions

prevent the flames propagation, precluding the existence of runaway flame fronts and the inflammation of surrounding non burning materials.

e) Providing the flow passages to feed the compressed ambient air mass flow, and therein generate a thermal insulation mechanism or heat shield, characterized by internal air flows and discharge air jets, whose flow fields prevent the heat transfer from the surrounding flames environment.

9) The method of extinguishing a fire as claimed in claim 8, further including the step of providing a wheel or wheels and rotary attachments to facilitate or increase the effectiveness of the fire fight work.

10) The method of extinguishing a fire as claimed in claim 8, further including the step of providing a pneumatic cylinder and a pneumatic control to facilitate or increase the effectiveness of the fire fight work.

11) The method of extinguishing a fire as claimed in claim 8, further including the step of providing a pole support and pivoted anchors to facilitate or increase the effectiveness of the fire fight work.

12) The method of extinguishing a fire as claimed in claim 8, further including the step of providing a ratchet wheel, a release pedal, a stability platform, and a vertical rotary attachment to facilitate or increase the effectiveness of the fire fight work.

- 13) The method of extinguishing a fire as claimed in claim 8, further including the step of providing throttle valves to facilitate or increase the effectiveness of the fire fight work.
- 14) The method of extinguishing a fire as claimed in claim 8, further including the step of providing a harness or suspenders to facilitate or increase the effectiveness of the fire fight work.
- 15) The method of extinguishing a fire by the flames containment and suppression process herein described, which comprises the steps of:
 - a) Providing the means for the continuous compression, in the fire location, of a local ambient or atmospheric air mass flow (a gas mixture of dry air and superheated water vapor).
 - b) Providing a pipe, flexible tube or hose to transport the compressed ambient air mass flow to the flames site.
 - c) Providing the storage tanks, pipes, valves, flexible tube or hose, and accessories to receive the external supply and transport a chemical fire fight agent mass flow (including plain water) to the flames site.
 - d) Providing the pipes, elbows, valves, controls and accessories to feed the compressed ambient air mass flow and the chemical fire fight agent mass flow to a device, whereinto a gas mixture components separation process takes place, characterized by the production of water in a liquid thermodynamic state obtained from the compressed

ambient air mass flow water vapor contents, and whose discharge is a flame front penetrating high speed ambient air and chemical fire fight agent jet containing water droplets, which is directed upon the flames, performing the aspersion of said chemical fire fight agent, and bringing about the flames suppression or blown off.

- e) Providing the ducts, pipes and flow passages to feed the compressed ambient air mass flow to an expansion device or devices, wherein is generated an aerodynamic flames containment mechanism, characterized by discharge air jets whose flow fields interactions prevent the flames propagation, precluding the existence of runaway flame fronts and the inflammation of surrounding non burning materials.
- f) Providing the flow passages to feed the compressed ambient air mass flow, and therein generate a thermal insulation mechanism or heat shield, characterized by internal air flows and discharge air jets, whose flow fields prevent the heat transfer from the surrounding flames environment.

16) The method of extinguishing a fire as claimed in claim 15, further including the step of providing a wheel or wheels and rotary attachments to facilitate or increase the effectiveness of the fire fight work.

17) The method of extinguishing a fire as claimed in claim 15, further including the step of providing a pneumatic cylinder and a pneumatic control to facilitate or increase the effectiveness of the fire fight work.

- 18) The method of extinguishing a fire as claimed in claim 15, further including the step of providing a pole support and pivoted anchors to facilitate or increase the effectiveness of the fire fight work.
- 19) The method of extinguishing a fire as claimed in claim 15, further including the step of providing a ratchet wheel, a release pedal, a stability platform, and a vertical rotary attachment to facilitate or increase the effectiveness of the fire fight work.
- 20) The method of extinguishing a fire as claimed in claim 15, further including the step of providing throttle valves to facilitate or increase the effectiveness of the fire fight work.
